

RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: 10/081,864A
Source: IFW16
Date Processed by STIC: 1/4/05

ENTERED



IFW16

RAW SEQUENCE LISTING

DATE: 01/04/2005

PATENT APPLICATION: US/10/081,864A

TIME: 12:47:47

Input Set : D:\seqlist.txt

Output Set: N:\CRF4\01042005\J081864A.raw

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4 <110> APPLICANT: Lukyanov, Sergey
5     Lukyanov, Konstantin
6     Yanushevich, Yuriy
7     Savistky, Alexandr
8     Fradkov, Arcady
10 <120> TITLE OF INVENTION: Non Aggregating Fluorescent Proteins and
11     Methods for Using the Same
14 <130> FILE REFERENCE: CLON-067
C--> 16 <140> CURRENT APPLICATION NUMBER: US/10/081,864A
C--> 16 <141> CURRENT FILING DATE: 2002-02-20
16 <150> PRIOR APPLICATION NUMBER: 10/006,922
17 <151> PRIOR FILING DATE: 2001-12-04
19 <150> PRIOR APPLICATION NUMBER: 60/270,983
20 <151> PRIOR FILING DATE: 2001-02-21
22 <160> NUMBER OF SEQ ID NOS: 31
24 <170> SOFTWARE: FastSEQ for Windows Version 4.0
26 <210> SEQ ID NO: 1
27 <211> LENGTH: 687
28 <212> TYPE: DNA
29 <213> ORGANISM: Anemonia majano
31 <400> SEQUENCE: 1
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34 acgcagacct cgacttttaa agtcaccatg gccaacggtg ggccccttgc attctccttt 180
35 gacatactat ctacagtgtt caagtatgga aatcgatgct ttactgcgta tcctaccagt 240
36 atgcccgact atttcaaaca agcatttcct gacggaatgt catatgaaag gacttttacc 300
37 tatgaagatg gaggagtgtc tacagccagt tgggaaataa gccttaaagg caactgcttt 360
38 gagcacaat ccacgtttca tggagtgaac tttcctgctg atggacctgt gatggcgaag 420
39 atgacaactg gttgggaccc atcttttgag aaaatgactg tctgcatgga aatattgaag 480
40 ggtgatgtca ccgcgttctt catgctgcaa ggaggtggca attacagatg ccaattccac 540
41 acttcttaca agacaaaaaa accggtgacg atgccaccaa accatgcggt ggaacatcgc 600
42 attgcgagga ccgaccttga caaaggtggc aacagtgttc agctgacgga gcacgctggt 660
43 gcacatataa cctctgttgt ccctttc                                     687
45 <210> SEQ ID NO: 2
46 <211> LENGTH: 229
47 <212> TYPE: PRT
48 <213> ORGANISM: Anemonia majano
50 <400> SEQUENCE: 2
51 Met Ala Leu Ser Asn Lys Phe Ile Gly Asp Asp Met Lys Met Thr Tyr
52 1           5           10           15
53 His Met Asp Gly Cys Val Asn Gly His Tyr Phe Thr Val Lys Gly Glu
54           20           25           30
55 Gly Asn Gly Lys Pro Tyr Glu Gly Thr Gln Thr Ser Thr Phe Lys Val

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56          35          40          45
57 Thr Met Ala Asn Gly Gly Pro Leu Ala Phe Ser Phe Asp Ile Leu Ser
58          50          55          60
59 Thr Val Phe Lys Tyr Gly Asn Arg Cys Phe Thr Ala Tyr Pro Thr Ser
60 65          70          75          80
61 Met Pro Asp Tyr Phe Lys Gln Ala Phe Pro Asp Gly Met Ser Tyr Glu
62          85          90          95
63 Arg Thr Phe Thr Tyr Glu Asp Gly Gly Val Ala Thr Ala Ser Trp Glu
64          100          105          110
65 Ile Ser Leu Lys Gly Asn Cys Phe Glu His Lys Ser Thr Phe His Gly
66          115          120          125
67 Val Asn Phe Pro Ala Asp Gly Pro Val Met Ala Lys Met Thr Thr Gly
68          130          135          140
69 Trp Asp Pro Ser Phe Glu Lys Met Thr Val Cys Asp Gly Ile Leu Lys
70 145          150          155          160
71 Gly Asp Val Thr Ala Phe Leu Met Leu Gln Gly Gly Gly Asn Tyr Arg
72          165          170          175
73 Cys Gln Phe His Thr Ser Tyr Lys Thr Lys Lys Pro Val Thr Met Pro
74          180          185          190
75 Pro Asn His Ala Val Glu His Arg Ile Ala Arg Thr Asp Leu Asp Lys
76          195          200          205
77 Gly Gly Asn Ser Val Gln Leu Thr Glu His Ala Val Ala His Ile Thr
78          210          215          220
79 Ser Val Val Pro Phe
80 225
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84 <211> LENGTH: 693
85 <212> TYPE: DNA
86 <213> ORGANISM: Zoanthus sp.
88 <400> SEQUENCE: 3
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90 tgcgtcgatg gacataaatt tgtgatcacg ggagagggca ttggatatcc gttcaaaggg 120
91 aaacaggcta ttaatctgtg tgtggtcgaa ggtggacat tgccatttgc cgaagacata 180
92 ttgtcagctg cctttatgta cggaaacagg gttttcactg aatatcctca agacatagct 240
93 gactatttca agaactcgtg tcctgctggt tatacatggg acaggtcttt tctctttgag 300
94 gatggagcag tttgcatatg taatgcagat ataacagtga gtgttgaaga aaactgcatg 360
95 tatcatgagt ccaaatttta tggagtgaat tttcctgctg atggacctgt gatgaaaaag 420
96 atgacagata actgggagcc atcctgcgag aagatcatat cagtacctaa gcaggggata 480
97 ttgaaagggg atgtctccat gtacctcctt ctgaaggatg gtgggcggtt acggtgccaa 540
98 ttgacacag tttacaaagc aaagtctgtg ccaagaaaga tgccggactg gcacttcac 600
99 cagcataagc tcacccgtga agaccgcagc gatgctaaga atcagaaatg gcatctgaca 660
100 gaacatgcta ttgcatccgg atctgcattg ccc 693
102 <210> SEQ ID NO: 4
103 <211> LENGTH: 231
104 <212> TYPE: PRT
105 <213> ORGANISM: Zoanthus sp.
107 <400> SEQUENCE: 4
108 Met Ala Gln Ser Lys His Gly Leu Thr Lys Glu Met Thr Met Lys Tyr
109 1          5          10          15

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110 Arg Met Glu Gly Cys Val Asp Gly His Lys Phe Val Ile Thr Gly Glu
111      20      25      30
112 Gly Ile Gly Tyr Pro Phe Lys Gly Lys Gln Ala Ile Asn Leu Cys Val
113      35      40      45
114 Val Glu Gly Gly Pro Leu Pro Phe Ala Glu Asp Ile Leu Ser Ala Ala
115      50      55      60
116 Phe Asn Tyr Gly Asn Arg Val Phe Thr Glu Tyr Pro Gln Asp Ile Ala
117 65      70      75      80
118 Asp Tyr Phe Lys Asn Ser Cys Pro Ala Gly Tyr Thr Trp Asp Arg Ser
119      85      90      95
120 Phe Leu Phe Glu Asp Gly Ala Val Cys Ile Cys Asn Ala Asp Ile Thr
121      100     105     110
122 Val Ser Val Glu Glu Asn Cys Met Tyr His Glu Ser Lys Phe Tyr Gly
123      115     120     125
124 Val Asn Phe Pro Ala Asp Gly Pro Val Met Lys Lys Met Thr Asp Asn
125      130     135     140
126 Trp Glu Pro Ser Cys Glu Lys Ile Ile Pro Val Pro Lys Gln Gly Ile
127 145     150     155     160
128 Leu Lys Gly Asp Val Ser Met Tyr Leu Leu Leu Lys Asp Gly Gly Arg
129      165     170     175
130 Leu Arg Cys Gln Phe Asp Thr Val Tyr Lys Ala Lys Ser Val Pro Arg
131      180     185     190
132 Lys Met Pro Asp Trp His Phe Ile Gln His Lys Leu Thr Arg Glu Asp
133      195     200     205
134 Arg Ser Asp Ala Lys Asn Gln Lys Trp His Leu Thr Glu His Ala Ile
135      210     215     220
136 Ala Ser Gly Ser Ala Leu Pro
137 225     230
140 <210> SEQ ID NO: 5
141 <211> LENGTH: 865
142 <212> TYPE: DNA
143 <213> ORGANISM: Zoanthus sp.
145 <400> SEQUENCE: 5
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147 catggctcat tcaaagcacg gtctaaaaga agaaatgaca atgaaatacc acatggaagg 120
148 gtgCGTcaac ggacataaat ttgtgatcac gggcgaaggc attggatatc cgttcaaagg 180
149 gaaacagact attaatctgt gtgtgatcga agggggacca ttgccatttt ccgaagacat 240
150 attgtcagct ggctttaagt acggagacag gattttcact gaatatcctc aagacatagt 300
151 agactatttc aagaactcgt gtcctgctgg atatacatgg ggcagggtctt ttctctttga 360
152 ggatggagca gtctgcatat gcaatgtaga tataacagtg agtgtcaaag aaaactgcat 420
153 ttatcataag agcatattta atggaatgaa ttttctctgt gatggacctg tgatgaaaaa 480
154 gatgacaact aactgggaag catcctgcga gaagatcatg ccagtaccta agcaggggat 540
155 actgaaaggg gatgtctcca tgtacctcct tctgaaggat ggtgggcgtt accggtgcca 600
156 gttcgacaca gtttaciaaag caaagtctgt gccaaagtaag atgccggagt ggcacttcat 660
157 ccagcataag ctctccgtg aagaccgcag cgatgctaag aatcagaagt ggcagctgac 720
158 agagcatgct attgcattcc cttctgcctt ggctgataa gaatgtagtt ccaacatttt 780
159 aatgcagtgt cttgtcaatt attctgataa aaatgtagtt gagttgaaaa cagacaagta 840
160 caaataaagc acatgtaaat cgtct
162 <210> SEQ ID NO: 6

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163 <211> LENGTH: 230

164 <212> TYPE: PRT

165 <213> ORGANISM: Zoanthus sp.

167 <400> SEQUENCE: 6

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168 Met Ala His Ser Lys His Gly Leu Lys Glu Glu Met Thr Met Lys Tyr
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170 His Met Glu Gly Cys Val Asn Gly His Lys Phe Val Ile Thr Gly Glu
171         20        25        30
172 Gly Ile Gly Tyr Pro Phe Lys Gly Lys Gln Thr Ile Asn Leu Cys Val
173        35        40        45
174 Ile Glu Gly Gly Pro Leu Pro Phe Ser Glu Asp Ile Leu Ser Ala Gly
175       50       55       60
176 Phe Lys Tyr Gly Asp Arg Ile Phe Thr Glu Tyr Pro Gln Asp Ile Val
177 65       70       75       80
178 Asp Tyr Phe Lys Asn Ser Cys Pro Ala Gly Tyr Thr Trp Gly Ser Phe
179        85        90        95
180 Leu Phe Glu Asp Gly Ala Val Cys Ile Cys Asn Val Asp Ile Thr Val
181       100      105      110
182 Ser Val Lys Glu Asn Cys Ile Tyr His Lys Ser Ile Phe Asn Gly Met
183      115      120      125
184 Asn Phe Pro Ala Asp Gly Pro Val Met Lys Lys Met Thr Thr Asn Trp
185     130     135     140
186 Glu Ala Ser Cys Glu Lys Ile Met Pro Val Pro Lys Gln Gly Ile Leu
187 145     150     155     160
188 Lys Gly Asp Val Ser Met Tyr Leu Leu Leu Lys Asp Gly Gly Arg Tyr
189        165       170       175
190 Arg Cys Gln Phe Asp Thr Val Tyr Lys Ala Lys Ser Val Pro Ser Lys
191      180      185      190
192 Met Pro Glu Trp His Phe Ile Gln His Lys Leu Leu Arg Glu Asp Arg
193     195     200     205
194 Ser Asp Ala Lys Asn Gln Lys Trp Gln Leu Thr Glu His Ala Ile Ala
195     210     215     220
196 Phe Pro Ser Ala Leu Ala
197 225     230

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200 <210> SEQ ID NO: 7

201 <211> LENGTH: 678

202 <212> TYPE: DNA

203 <213> ORGANISM: Discosoma sp

205 <400> SEQUENCE: 7

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207 accgtgaacg gccacgagtt cgagatcgag ggcgagggcg agggccgccc ctacgagggc 120
208 cacaacaccg tgaagctgaa ggtgaccaag ggcgggcccc tgcccttcgc ctgggacatc 180
209 ctgtcccccc agttccagta cggctccaag gtgtacgtga agcaccgccg cgacatcccc 240
210 gactacaaga agctgtcctt ccccaggggc ttcaagtggg agcgcgtgat gaacttcgag 300
211 gacggcgggc tggtgaccgt gaccaggac tctccctgc aggacggctg cttcatctac 360
212 aaggtgaagt tcatcggcgt gaacttcccc tccgacggcc ccgtgatgca gaagaagacc 420
213 atgggctggg aggcctccac cgagcgcctg taccgccgac acggcgtgct gaagggcgag 480
214 atccacaagg cctgaagct gaaggacggc ggccactacc tggtaggagtt caagtccatc 540
215 tacatggcca agaagcccgt gcagctgccc ggctactact acgtggactc caagctggac 600

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216 atcacctccc acaacgagga ctacaccatc gtggagcagt acgagcgcac cgagggccgc 660
217 caccacctgt tcctgtaa                               678
219 <210> SEQ ID NO: 8
220 <211> LENGTH: 225
221 <212> TYPE: PRT
222 <213> ORGANISM: Discosoma sp.
224 <400> SEQUENCE: 8
225 Met Arg Ser Ser Lys Asn Val Ile Lys Glu Phe Met Arg Phe Lys Val
226 1          5          10          15
227 Arg Met Glu Gly Thr Val Asn Gly His Glu Phe Glu Ile Glu Gly Glu
228          20          25          30
229 Gly Glu Gly Arg Pro Tyr Glu Gly His Asn Thr Val Lys Leu Lys Val
230          35          40          45
231 Thr Lys Gly Gly Pro Leu Pro Phe Ala Trp Asp Ile Leu Ser Pro Gln
232          50          55          60
233 Phe Gln Tyr Gly Ser Lys Val Tyr Val Lys His Pro Ala Asp Ile Pro
234 65          70          75          80
235 Asp Tyr Lys Lys Leu Ser Phe Pro Glu Gly Phe Lys Trp Glu Arg Val
236          85          90          95
237 Met Asn Phe Glu Asp Gly Gly Val Val Thr Val Thr Gln Asp Ser Ser
238          100         105         110
239 Leu Gln Asp Gly Cys Phe Ile Tyr Lys Val Lys Phe Ile Gly Val Asn
240          115         120         125
241 Phe Pro Ser Asp Gly Pro Val Met Gln Lys Lys Thr Met Gly Trp Glu
242          130         135         140
243 Ala Ser Thr Glu Arg Leu Tyr Pro Arg Asp Gly Val Leu Lys Gly Glu
244 145          150         155         160
245 Ile His Lys Ala Leu Lys Leu Lys Asp Gly Gly His Tyr Leu Val Glu
246          165         170         175
247 Phe Lys Ser Ile Tyr Met Ala Lys Lys Pro Val Gln Leu Pro Gly Tyr
248          180         185         190
249 Tyr Tyr Val Asp Ser Lys Leu Asp Ile Thr Ser His Asn Glu Asp Tyr
250          195         200         205
251 Thr Ile Val Glu Gln Tyr Glu Arg Thr Glu Gly Arg His His Leu Phe
252          210         215         220
253 Leu
254 225
257 <210> SEQ ID NO: 9
258 <211> LENGTH: 696
259 <212> TYPE: DNA
260 <213> ORGANISM: Anemonia sulcata
262 <400> SEQUENCE: 9
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264 ggccactact tcaagtgtac aggaaaagga gagggcaacc catttgaggg tacgcaggaa 120
265 atgaagatag aggtcatcga aggaggtcca ttgccatttg ccttccacat tttgtcaacg 180
266 agttgtatgt acggtagtaa ggccttcac aagtatgtgt caggaattcc tgactacttc 240
267 aagcagtctt tccctgaagg ttttacttgg gaaagaacca caacctacga ggatggaggg 300
268 tttctttacag ctcacagga cacaagccta gatggagatt gcctcgttta caaggtcaag 360
269 attcttggta ataattttcc tgctgatggc cccgtgatgc agaacaaagc aggaagatgg 420

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VERIFICATION SUMMARY

DATE: 01/04/2005

PATENT APPLICATION: US/10/081,864A

TIME: 12:47:48

Input Set : D:\seqlist.txt

Output Set: N:\CRF4\01042005\J081864A.raw

L:16 M:270 C: Current Application Number differs, Replaced Current Application No

L:16 M:271 C: Current Filing Date differs, Replaced Current Filing Date